

Quadratics Review

Date _____ Period _____

Factor each completely.

1) $5n^2 - 45$

2) $k^2 - 10k$

3) $n^2 - 8n - 20$

4) $4x^2 + 56x + 180$

5) $b^2 - 9$

6) $64x^2 - 121$

Find the x -intercepts by factoring the quadratic equations.

7) $f(x) = x^2 + 10x + 24$

8) $y = x^2 - 7x - 18$

9) $f(x) = x^2 + 5x + 24$

10) $y = x^2 + 4x - 60$

Identify a , b , and c . Then find the x -intercepts using quadratic formula.

11) $f(x) = x^2 - 8x - 33$

12) $y = x^2 + 6x - 4$

13) $-3x^2 - 3x - 18 = 0$

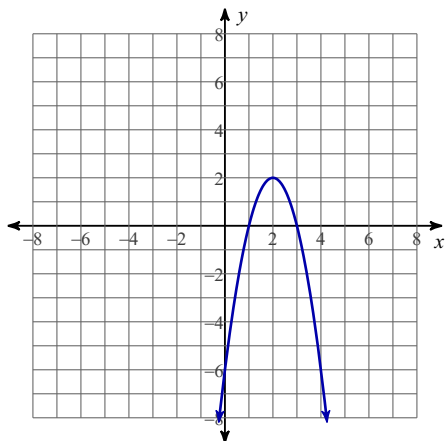
14) $f(x) = -3x^2 + 2x + 40$

15) $f(x) = -x^2 + 4x + 12$

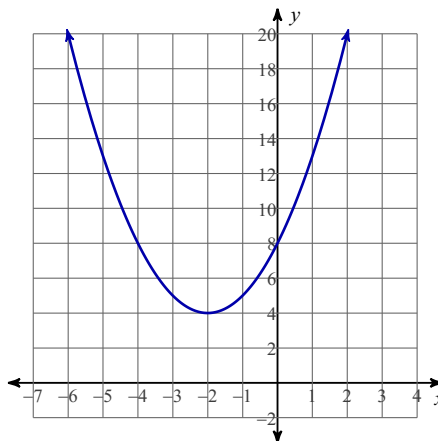
16) $f(x) = 3x^2 - 3$

Identify the key features of the quadratic function given the graph.

17)

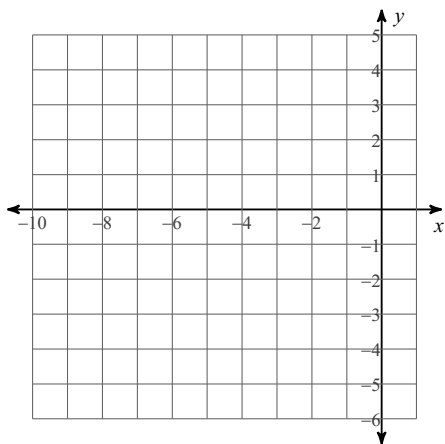


18)

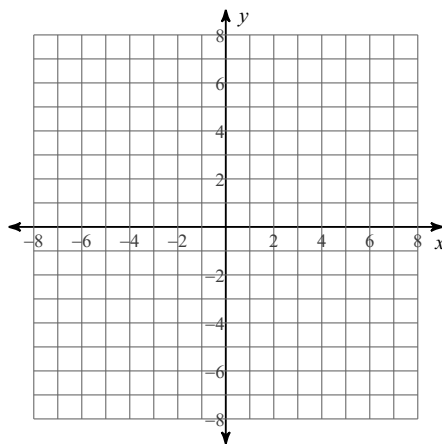


Graph each quadratic function. List all key features.

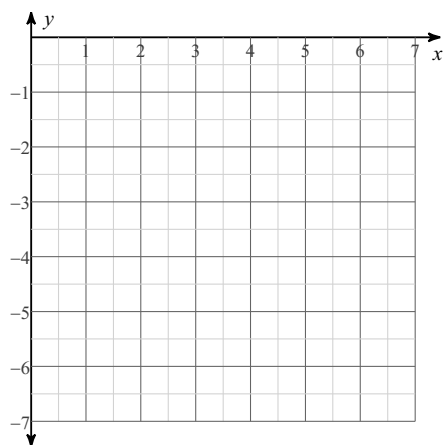
19) $y = -x^2 - 12x - 32$



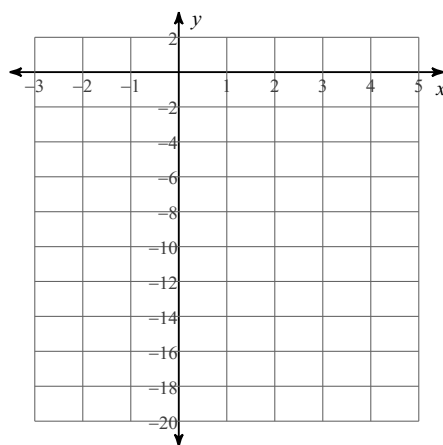
20) $y = -x^2 + 1$



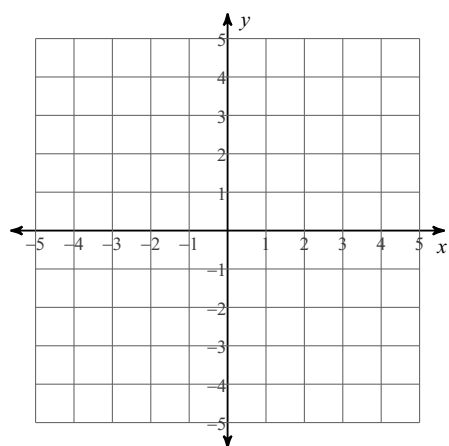
21) $y = -(x - 4)^2 - 2$



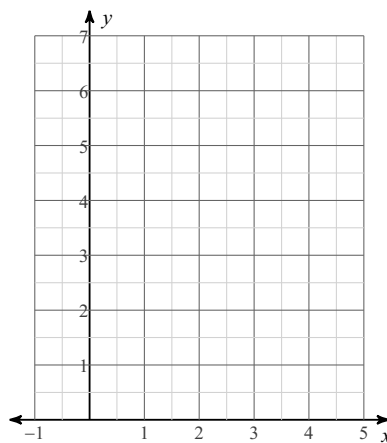
22) $f(x) = 2(x - 4)(x + 2)$



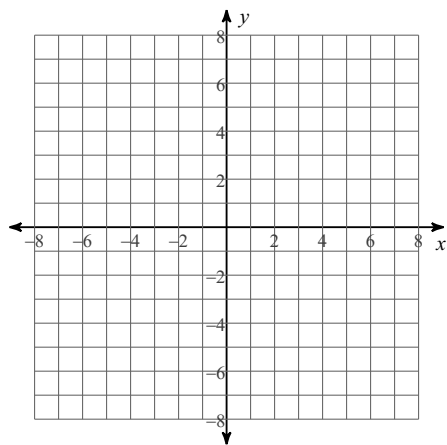
23) $y = -x^2 + 4x - 3$



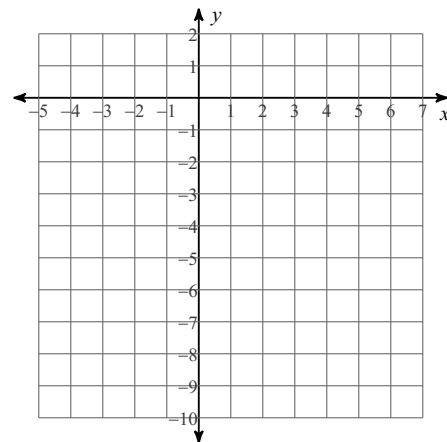
24) $f(x) = \frac{1}{2}(x - 2)^2 + 4$



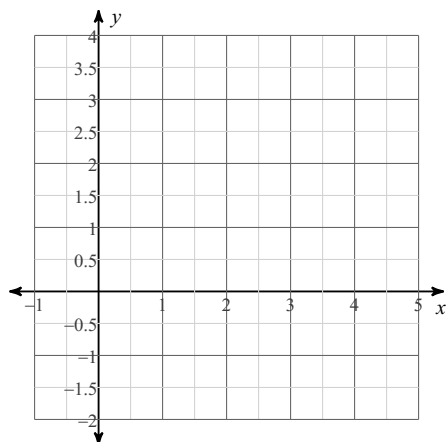
$$25) y = -(x - 3)(x + 1)$$



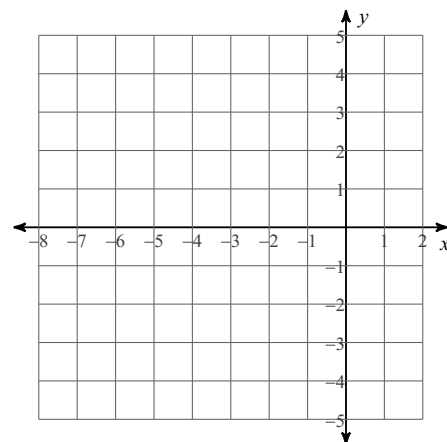
$$26) f(x) = \frac{1}{2}(x - 6)(x + 2)$$



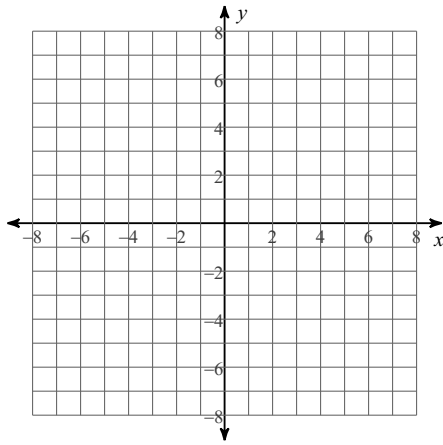
$$27) y = -(x - 1)^2 + 3$$



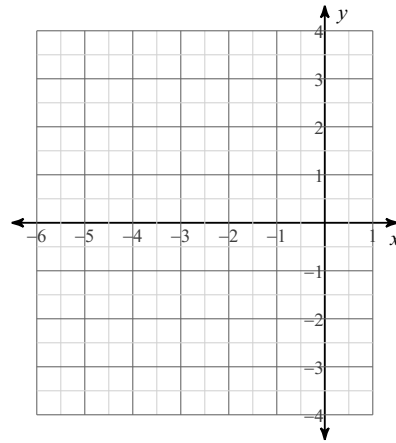
$$28) f(x) = -2x^2 - 12x - 14$$



29) $f(x) = -(x - 5)(x - 1)$



30) $f(x) = -(x + 4)^2 + 2$



Write the quadratic equation for the following in Factored Form.

31) Zeros of $x = 0$ and $x = 4$ and goes through the point $(3, -2)$

32) Zeros of $x = -2$ and $x = 4$ and goes through the point $(2, 8)$

33) Zeros of $x = -7$ and $x = 5$ and the point $(-2, -10)$

Write the quadratic equation for the following in Vertex Form.

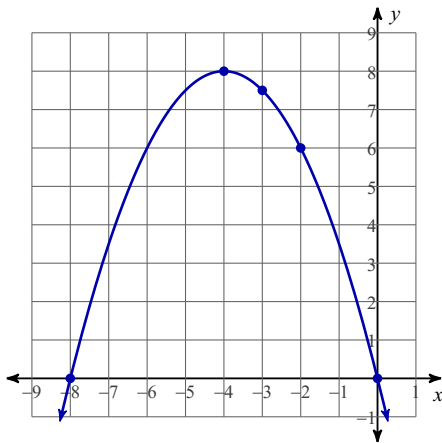
34) Vertex $(2, 5)$ and goes through the point $(8, 6)$

35) Vertex $(2, -3)$ and goes through the point $(1, -6)$

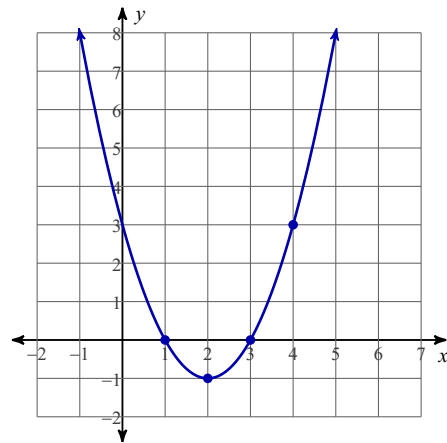
36) Vertex $(-5, 4)$ and goes through the point $(-3, 2)$

Write the equation for the quadratic function graphed below in Factored Form.

37)

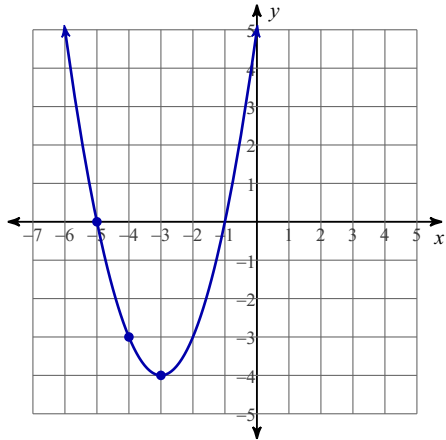


38)



Write the equation for the quadratic function graphed below in Vertex Form.

39)



40)

